

Part III-C: Helper T Cell References

Helper T

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(Medline: 92013142) Notes: 20% of T-cell clones from individuals inoculated with a recombinant nonglycosylated form of gp120 failed to respond to glycosylated protein. The epitope for one such clone was mapped and contained two glycosylated asparagines. Thus N-linked carbohydrates can abrogate antigen recognition by T lymphocytes.

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immunity in mice to the native protein using a 16-residue synthetic peptide. *Proc Natl Acad Sci USA* **84**:4249–4253, 1987. (Medline: 87231983) Notes: An algorithm based on a model of immunodominant helper T-cell sites forming amphipathic helices was used to identify for the first time two T-cell sites, env T1 and env T2. These two peptides were shown to stimulate proliferation of T-cells in mice immunized with a fragment of the env protein. Also, mice immunized with T1 were able to induce immunity to env gp120. Multiple haplotypes were responsive. Env epitopes: T2: HEDIISLWDQSLK and T1: KQIINMWQEVGKAMYA.

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these peptides were able to stimulate a potent antibody response. That a functional T-helper cell epitope is present within the peptide is inferred by the ability of B-cells to respond to these constructs. Using this system, adjuvant could be bypassed.

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